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ABSTRACT

This student learning guide contains nine modules for completing a course in masonry. It is designed especially for use in secondary schools in Palm Beach County, Florida. Each module covers one task, and consists of a purpose, performance objective, enabling objectives, learning activities keyed to resources, information sheets, student self-check with answer key, performance test, instructional resources, and knowledge test. The nine modules cover the following topics: practicing safety; mixing practice mortar; cutting masonry materials with hand tools and cutoff saws; manipulating mortar for blocks; laying blocks to a line; constructing a block wall between existing leads; laying an eight-inch block lead; laying an eight-inch block corner; and constructing an eight-inch block wall. (KC)

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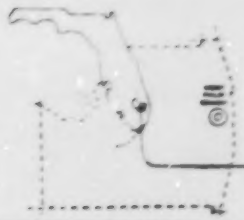

THE SCHOOL BOARD
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DUTY | TASK | PREREQ | DEPT | PROG

PROGRAM: MASONRY

DUTY: A COMPLETING CORE CURRICULUM

TASK: 0 3 Practice Safety

PURPOSE:

It is to every student's benefit to practice good safety rules at all times. Safety requirements in the masonry class are very similar to what you will find on the job. You need to identify and perform these safety requirements to be able to prevent an accident which could result in injury or death.

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THIS STUDENT LEARNING GUIDE WAS DEVELOPED BY:

Matt Korenski, Masonry Instructor
South Technical Education Center

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DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN: access to materials and safety devices,

YOU WILL: practice safety.

HOW WELL: You must successfully complete the Knowledge Test.

ENABLING OBJECTIVES:

1. Identify safety practices in masonry.
2. Practice safety.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [1] number

DUTY | TASK | EN. OBJ | DEPT. | PROG.

Enabling objective

Identify safety practices in masonry.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Read Resource No. 1 to identify safety practices in masonry. 2. Evaluate your knowledge by completing the Self-Check. Have your instructor check your work. 3. When you think you can attain this task, take the Knowledge Test. 4. Go on to Enabling Objective No. 2.	1. Text: Safety for Masons, Units 1-7, pages 1-72. 2. Self-Check enclosed. 3. Knowledge Test for task A-03.

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SELF-CHECK FOR ENABLING OBJECTIVE [1] number PAGE 5 OF 9

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

DIRECTIONS:

Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. If a fire starts in the shop or classroom, the students should leave the building by the nearest exit.
2. When pushing a loaded wheelbarrow and it starts to upset, you should brace it against your legs and let it upset slowly.
3. If the handle in your hammer becomes loose, the proper way to tighten it is to drive the handle in the head of the hammer and cut the excess handle off.
4. A diamond blade used on a masonry saw must have a stream of water sprayed on it while sawing.
5. When putting gas in the gas tank of equipment, a funnel should be used.
6. A footboard scaffolding should only be built 8" in height.
7. Soft shoes should not be worn in the masonry shop because they do not give protection to your feet.
8. The best way to lift an object is to keep your feet close together and your back in a straight position.

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DUTY | TASK | EN OBJ. | DEPT. | PROG.

Enabling objective

Practice safety.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No. 1 to identify safety regulations in your shop.	1. Instruction Sheet enclosed, Shop Safety Regulations
2. Complete the Self-Check.	2. Self-Check enclosed.
3. When you think you can attain this task, take the Knowledge Test.	3. Knowledge Test

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Shop Safety Regulations

1. NO HORSEPLAY!
2. Safety glasses MUST be worn when using cutting tools or mixing mortar.
3. WORK BOOTS MUST BE WORN AT ALL TIMES. TENNIS SHOES WILL NOT BE ALLOWED.
4. Fire extinguishers are located at each ends of the shop. Locate these at this time.
5. YOU are responsible for cleaning your own work area.
6. You MUST return tools and equipment to the designated area.
7. Jewelry (rings, necklaces, etc.) MUST be removed before operating equipment.
8. Notify your instructor immediately of any accident, regardless of the amount of injury.

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DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.

All items should receive a "YES" response.

	YES	NO
. Were the following tools held properly while being used for cutting: trowel, hammer, and brickset?.....	___	___
Were the bricks tied together by interlocking every other layer?.....	___	___
. When blocks were being stacked, were the hands kept on top of the blocks?.....	___	___
. Was the proper eye protection worn when mixing mortar?.....	___	___
. Was the proper eye protection worn when cutting with a masonry saw?.....	___	___
. Was the proper safety protection used when washing down masonry?.....	___	___

If you received a "NO" response for any item, go back and repeat one or more of the Learning activities for this Enabling Objective.

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DUTY | TASK | DEPT. | PROG.

Instructional Resources

Texts

Kreh, Richard, Sr., Safety for Masons, Delmar Publishers, Albany, New York, 1979.

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KNOWLEDGE TEST FOR [A] (duty) [0 3] (task number)

DUTY | TASK | DEPT. | PROG.

TASK: Practice Safety

DIRECTIONS:

The items below are Multiple Choice. On a separate Answer Sheet, put the letter of the correct answer in the blank to the left of the number of the question.

DO NOT MARK ON THIS TEST!

Multiple Choice Questions

. The responsibility of keeping shop and work area clean belong to the:

a. instructor.
b. student.
c. school.
d. custodian.

. All kinds of oily rags should be stored in:

a. your tool box.
b. your locker.
c. the tool room.
d. an airtight container.

. What is the main reason for placing masonry units forward over the wheel of a wheelbarrow?

a. to get more masonry units on the wheelbarrow.
b. to balance the wheelbarrow.
c. to move faster with the wheelbarrow.
d. so that the handles won't break.

. Which is the correct container for storing gasoline?

a. glass.
b. explosion-proof metal can.
c. plastic.
d. metal.

. The correct way to tighten a handle in a brick hammer is to:

a. place the hammer in a container of water.
b. put a new wedge in the end of the handle.
c. drive the handle up in the hammer.
d. drive a nail in the end of the handle.

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KNOWLEDGE TEST FOR [A] duty [0 3] task number

CONTINUED

DUTY | TASK | DEPT. | PROG.

. What way can a mushroomed head on a chisel be corrected?

a. by sanding.
b. by cutting the end off.
c. by grinding.
d. by beating on it with a hammer.

. An electrical plug with a ground has how many prongs?

a. four.
b. three.
c. two.
d. one.

. Why should a mason stand on a piece of plywood or platform when operating a masonry saw?

a. it is more comfortable.
b. to keep his feet dry.
c. it reduces the chance of an electrical shock.
d. to keep from slipping.

. When cutting with a diamond blade on a masonry saw, the blade should have:

a. air blowing on it.
b. water spraying on it.
c. oil spraying on it.
d. nothing put on it.

. A footboard scaffold should not be built higher than:

a. 8 inches.
b. 10 inches.
c. 16 inches.
d. 20 inches.

. How many inches should planks overlap when used on scaffold frames?

a. 12 inches.
b. 10 inches.
c. 8 inches.
d. 6 inches.

. Why should soft shoes not be worn in masonry?

a. make feet sweat.
b. there is no protection to the feet.
c. let feet get cold.
d. does not look presentable for a mason.

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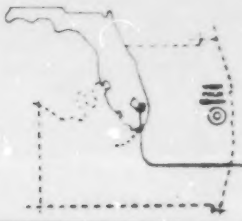

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DUTY A | TASK 05 | PREREQ | DEPT IN | PROG. 9133

REVISED

PROGRAM: MASONRY

DUTY: [A] COMPLETING CORE CURRICULUM

TASK: [0] [5] Mix Practice Mortar

PURPOSE:

Practice mortar will be used to lay masonry units while you are learning masonry skills. Practice mortar costs less than masonry mortar and it is reusable. Learning to mix practice mortar will help you to be more confident when you begin mixing actual masonry mortar.

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DUTY A | TASK 05 | DEPT IN | PROG. 9133

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN: access to a work area, equipment, tools and materials,

YOU WILL: mix practice mortar.

HOW WELL: You must successfully complete the Knowledge Test.

ENABLING OBJECTIVES:

1. Identify steps for mixing practice mortar manually.
2. Identify steps for mixing practice mortar with a mixer.
3. Practice mixing practice mortar.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [1] number

DUTY A | TASK 05 | EN. OBJ. 1 | DEPTEN | PROG. 9133

Enabling objective

Identify steps for mixing practice mortar manually.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Read Resource No. 1 to identify tools, equipment, materials and steps for mixing practice mortar manually. 2. Evaluate your knowledge by completing the Self-Check. 3. Go on to Enabling Objective No. 2	1. Instruction Sheet enclosed, Mixing Practice Mortar Manually 2. Self-Check enclosed.

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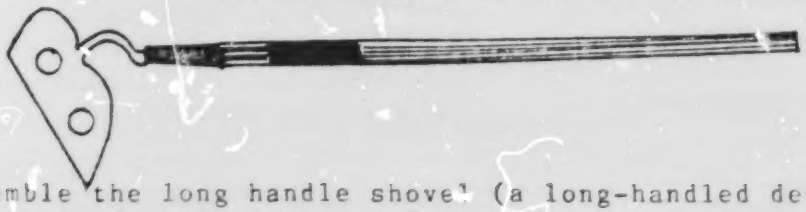
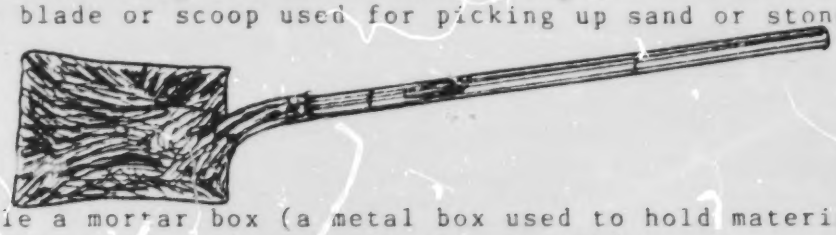
Mixing Practice Mortar Manually

1. a. Assemble the mortar hoe (a long handled device having a thin, flat blade with two holes used to mix mortar manually).



b. Assemble the long handle shovel (a long-handled device with a square blade or scoop used for picking up sand or stone).



c. Assemble a mortar box (a metal box used to hold materials which are being mixed to become practice mortar).

d. Setup the mortar box on four 8" x 8" x 16" concrete blocks layed flat in the area used for mixing mortar.

View Figure 11-2, Step 1, page 78 - Masonry Skills.

Cautions: 1. Do not use a water hose to add water to the mortar as the water cannot be measured accurately!

2. Safety glasses should be worn when mixing the mortar!

2. Mix 9 shovels of sand to 1 bag of lime. Add 9 shovels more of sand. Dry mix twice before adding water.

3. Wash up the tools and equipment and store them in their proper place.

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DIRECTIONS:

Evaluate your knowledge by putting the letter of the correct answer on a separate sheet of paper.

1. The tool used to mix mortar manually is a:

   a. trowel.
   b. shovel.
   c. hoe.
   d. rake.

2. Which of the following materials is used in practice mortar?

   a. carotex
   b. cement
   c. lime
   d. stone

3. Which of the following materials is placed in the mortar box first when mixing mortar manually?

   a. water
   b. soap
   c. sand
   d. carotex

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [2] number

DUTY A | TASK 05 | EN. OBJ. 2 | DEPT.IN | PROG. 9133

Enabling objective:

Identify steps for mixing practice mortar with a mixer.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Read Resource No. 1 to identify tools, equipment, materials and steps for mixing practice mortar with a mixer. 2. Evaluate your knowledge by completing the Self-Check. 3. When you think you can attain this task, take the Knowledge Test. 4. Go on to Enabling Objective No. 3.	1. Instruction Sheet enclosed, Mixing Practice Mortar with a Mixer 2. Self-Check enclosed. 3. Knowledge Test for task A-05.

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DIRECTIONS:

Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. Sand is the first ingredient put in the mixer.
2. All of the ingredients of practice mortar are put in the mixer.
3. A water hose is used to put water in the mixer when mixing practice mortar.
4. The safety grate is the hood that covers the motor of the mixer.
5. Safety glasses should be worn while mixing mortar in a mixer.
6. Practice mortar should be mixed 15 minutes after all of the ingredients have been put in the mixer.
7. Mixing a batch of practice mortar should be done before you are instructed how to operate the mixer.
8. Wash out the mixer with water after each batch of mortar has been mixed.

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Enabling objective:

Practice mixing practice mortar with a mixer.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for instructions on how to operate the mixer and for your job of mixing practice mortar with a mixer.	1. Instructor
2. Practice mixing practice mortar with a mixer.	2. a. Tools b. Equipment c. Materials
3. When completed, evaluate your work using the Self-Check.	3. Self-Check enclosed.
4. Have instructor check your work.	4. Instructor
5. When you think you can perform this task, take the Performance Test.	5. Performance Test for task A-05.

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DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.

All items should receive a "YES" response.

	YES	NO
1. Were tools, equipment and materials assembled?	___	___
2. Was the mixer set up?	___	___
3. Were nine shovels of sand used for the batch of practice mortar?	___	___
4. Was one bag of lime used in the batch of practice mortar?	___	___
5. Was water added before mixer was turned on?	___	___
6. Was more water put in as needed?	___	___
7. After all the ingredients were in the mixer, did it mix for five minutes?	___	___
8. Were safety glasses worn while mixing the practice mortar in the mixer?	___	___
9. Was the mortar usable, not too wet or too dry?	___	___

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If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Ojective.

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PERFORMANCE TEST FOR [A] (duty) [0 5] (task number)

DUTY A | TASK 05 | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. IN | PROG. 9133

DIRECTIONS:

Given access to a work area, equipment, tools and materials, you will mix a batch of practice mortar manually and with a mixer. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
Mixer		
1. Was the mixer set up?		
2. Was water put in the mixer first?		
3. Were sand and lime put in the mixer next?		
4. Were all ingredients mixed thoroughly for five minutes?		
5. Were safety glasses worn while mixing the practice mortar?		
6. Was the mortar usable, not too wet or too dry?		
7. Were the tools and mixer washed after the mortar was mixed?		

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DUTY A | TASK 05 | DEPT. IN | PROG. 9133

Materials

Sand and lime

Equipment

Safety glasses

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KNOWLEDGE TEST FOR [A] (duty) [05] (task number)

DUTY A | TASK 05 | DEPT. IN | PROG. 9133

TASK: Mix Practice Mortar

DIRECTIONS:

The items below are Multiple Choice. On the separate Answer Sheet, put the letter of the correct answer on the blank to the left of the number of the question.

DO NOT MARK ON THIS TEST!

Multiple Choice questions

1. The tool used for mixing practice mortar manually is a:

   a. shovel.
   b. hoe.
   c. trowel.
   d. rake.

2. Which of the following materials is not used when mixing practice mortar?

   a. cement.
   b. sand.
   c. Ball Clay.
   d. water.

3. The first material put in the mortar box when mixing practice mortar is:

   a. water.
   b. sand.
   c. Ball Clay.
   d. soap.

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The items below are True-False. On the separate Answer Sheet, circle T for True and F for False.

DO NOT MARK ON THIS TEST!

1. Sand, lime and water are the ingredients for mixing practice mortar in a mixer.

2. Sand is the first ingredient put in the mixer.

3. All of the ingredients of practice mortar are put in the mixer before it is turned on.

4. The safety grate is the cover over the drum of the mixer which holds the ingredients.

5. Safety glasses do not have to be worn while mixing practice mortar in a mixer.

6. Extra water, if needed while mixing practice mortar, should be put in the mixer with a water hose.

7. The mixer should be washed out after each batch of mortar.

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KNOWLEDGE TEST ANSWER KEY

DUTY A	TASK 05	DEPT IN	PROG 9133

Multiple Choice Questions

b 1.	7.	13.	19.	25.	31.	37.	43.	49.
a 2.	8.	14.	20.	26.	32.	38.	44.	50.
b 3.	9.	15.	21.	27.	33.	39.	45.	
4.	10.	16.	22.	28.	34.	40.	46.	
5.	11.	17.	23.	29.	35.	41.	47.	
6.	12.	18.	24.	30.	36.	42.	48.	

Echino questions

1.	7.	13.	19.	25.	31.	37.	43.	49.
2.	8.	14.	20.	26.	32.	38.	44.	50.
3.	9.	15.	21.	27.	33.	39.	45.	
4.	10.	16.	22.	28.	34.	40.	46.	
5.	11.	17.	23.	29.	35.	41.	47.	
6.	12.	18.	24.	30.	36.	42.	48.	

True-False Questions

(F) 1.	T F 11.	T F 21.	T F 31.	T F 41.
(F) 2.	T F 12.	T F 22.	T F 32.	T F 42.
(T) 3.	T F 13.	T F 23.	T F 33.	T F 43.
( ) F 4.	T F 14.	T F 24.	T F 34.	T F 44.
(T) 5.	T F 15.	T F 25.	T F 35.	T F 45.
( ) F 6.	T F 16.	T F 26.	T F 36.	T F 46.
(F) 7.	T F 17.	T F 27.	T F 37.	T F 47.
( ) F 8.	T F 18.	T F 28.	T F 38.	T F 48.
F 9.	T F 19.	T F 29.	T F 39.	T F 49.
F 10.	T F 20.	T F 30.	T F 40.	T F 50.

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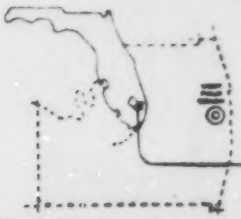

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DUTY A | TASK 12 | PREREQ. | DEPT. IN | PROG. 9133

PROGRAM: MASONRY

DUTY: [A] COMPLETING CORE CURRICULUM

TASK: [1] [2] Cut Masonry Materials with Hand Tools and Cutoff Saws

REVISED

PURPOSE:

When working on construction jobs, the mason usually finds a situation where a brick or block needs to be cut so that they will fit the job. When this cutting is called for, the cut can be made with various hand tools. A more precise cut can be made with a masonry saw, if available. This Learning Guide will help you cut brick and block with hand tools and power tools (masonry saws).

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PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN: access to masonry materials, hand tools, and cutoff saws,

YOU WILL: cut masonry materials with hand tools and cutoff saws.

HOW WELL: You must sucessfully complete the Knowledge Test.

Your performance will be assessed by your instructor using the Performance Test on pages 16-17.

ENABLING OBJECTIVES:

1. Identify steps in cutting masonry materials using hand tools.
2. Identify steps in cutting masonry materials with masonry saws.
3. Practice cutting masonry materials with hand tools.
4. Practice cutting masonry materials with masonry saws.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE ☐ number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective:

Identify steps in cutting masonry materials using hand tools.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Read Resource No. 1 to identify steps in cutting masonry materials using hand tools.	1. a. Instruction Sheets enclosed, Cutting Bricks and Blocks Using a Hammer and Chisel b. Instruction sheet enclosed, Cutting Bricks Using Elmer's Little Helper
2. Evaluate your knowledge by completing the Self-Check. Have your instructor check your work.	2. Self-Check enclosed.
3. Go on to Enabling Objective No. 2.	

Cutting Bricks and Bl[illegible] Using a Hammer and Chisel

1. Remember to wear safety glasses when cutting with the hammer and chisel.
2. Select a brick which is free of cracks.
3. Inspect chisel for burrs (ragged edge of metal on a chisel head).
4. Place the marked brick (a brick that has been marked with a pencil across the face for a certain size) on the ground or on a board. This will keep the brick from shattering (breaking into pieces).
5. Hold the chisel on the mark angled slightly toward the piece being sawed (the piece of brick that is to be layed). When sawing both pieces, hold the chisel vertically (straight up and down).

   View Figure 7-23, page 50 in Masonry Skills.
6. Take the brick hammer and strike the chisel with the head of the hammer. Hold the chisel tight in your hand. Hit the chisel with a hard blow.
7. If the brick does not break, continue to strike the chisel until the brick does break.

   Note: Remember to place hammer and chisel under mortar board when not in use.
8. To cut a brick with the hammer, hold the brick balanced and also tilt the end to be cut down toward your body. But, hold it out from the body so the piece of brick will not fall on your feet.

   View Figure 7-22, page 50 in Masonry Skills.
9. To cut a block with a hammer and chisel or just a hammer, mark the block on both sides with a pencil.
10. Score the block (hit the chisel along the mark on both sides of the block lightly) and then hit harder until the block breaks.

    Veiw Figure 18-10, page 137 in Masonry Skills.
11. Then take your hammer and cut any rough edges off if needed.
12. Remember, when marking a block, the line must be square across the face of the block to get the same size cut on both sides.

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Cutting Bricks Using Elmer's Little Helper

1. Remember to wear safety glasses while using the Elmer's Little Helper.
2. Remember to keep the table of the cutter free of sand and brick chips after each cut.
3. Place Elmer's Little Helper on a solid and level foundation.
4. Place a brick (without any cracks) on the table of the cutter.
5. Place the brick against the ruler on the back of the cutter table (on edge of brick or narrow side of brick,.
6. Move the end of the brick to the number of the size of cut you want.
7. Adjust top jaw by turning the screw handle on top of cutter so that it is touching the face of the brick.
8. Pull handle (rod with a rubber grip) down until brick cuts in half.
9. The cutter has a blade on the top and on the bottom.
10. The cutter will not cut just a small amount from a brick. Example: 1/4", 3/8" or 1/2". It will only chip the brick when this is tried.

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DIRECTIONS:

Evaluate your knowledge by putting the letter of the correct answer on the blank to the left of the number of the question on a separate sheet of paper.

1. Before using the chisel for cutting, inspect it for:

   a. size.
   b. burrs.
   c. color.
   d. type.

2. Before cutting, place the marked brick on a/an:

   a. another brick.
   b. concrete block.
   c. board.
   d. none of the above.

3. When both pieces of brick are to be used, hold the chisel:

   a. straight up and down.
   b. toward the body.
   c. away from the body.
   d. lay the brick down flat.

4. If the brick does not break when you strike it the first time you should:

   a. get another brick.
   b. turn the brick over.
   c. strike it until it breaks.
   d. lay the brick down flat.

5. To cut a block with a hammer and chisel you should first:

   a. raise one end up.
   b. score both sides.
   c. set the block on end.
   d. none of the above.

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6. Place the brick on the table of the cutter against the:

   a. back.
   b. front.
   c. side.
   d. ruler.

7. When cutting, what part of the brick do you move to the number on the ruler?

   a. end
   b. side
   c. back
   d. front

8. To get the cutter to cut the brick you must:

   a. turn the screw handle.
   b. pull down on the handle.
   c. adjust the top jaw.
   d. all of the above.

9. Remember to keep the table of the cutter:

   a. level.
   b. free of brick chips.
   c. free of sand.
   d. all of the above.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [2] number

DUTY A | TASK 12 | EN. OBJ. 2 | DEPT.IN | PROG. 9133

Enabling objective

Identify steps in cutting masonry materials with masonry saws.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Read Resource No. 1 to identify steps for cutting masonry materials with masonry saws.	1. Instruction Sheet enclosed, Using a Dry Saw to Cut Masonry Materials
2. Evaluate your knowledge by completing the Self-Check. Have your instructor check your work.	2. Self-Check enclosed.
3. When you think you can attain this task, take the Knowledge Test.	3. Knowledge Test for task A-12.
4. Go on to Enabling Objective No. 3.	

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Using a Dry Saw to Cut Masonry Materials

1. Wear safety glasses.
2. Put down platform to stand on while sawing.
3. Get power cord from material and supply room (115 volts).
4. Check to see that the "ON-OFF" switch is in the "OFF" position.
5. Check to see if blade is tight.
6. Connect power cord to saw and then to power supply.
7. Stand clear of blade, turn saw on and let it run for one minute.
8. Turn saw off and position block on saw carriage.
9. The block should rest against the back of the carriage.
10. The blade should line up with the mark on the block.
11. With your left hand, pull down on the handle (a pipe on the left side of the blade with a rubber grip) until the blade lines up with the mark.
12. Turn saw on, hold the block with one hand and saw the block.
13. The blade will cut about half-way through the block.
14. Turn the saw off and turn the block over.
15. The block must be marked on both sides with a pencil.
16. Line the blade up with the mark on the other side of the block.
17. Turn the saw on and saw the block until it is cut in half.
18. Turn the saw off.
19. Remove the cut block from the carriage.
20. When sawing is completed, disconnect power cord.

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DIRECTIONS:

Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. The power cord should be connected to saw and then to power supply.
2. The brick should be positioned on the front part of the carriage.
3. You should hold down on the brick while sawing.
4. The brick should not be let up on until it is cut in half.
5. Your eyes should be kept on the brick while cutting.
6. The cut brick should be removed while saw is running.
7. The dry saw runs on 220 volts.
8. The dry saw is used to cut blocks.
9. When cutting a block on the dry saw, the block should be marked on both sides.
10. One hand is used to pull a handle down as you cut on the dry saw.

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Enabling objective:

Practice cutting masonry materials with hand tools.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of cutting masonry materials with hand tools.	1. Instructor
2. See instructor for instructions on cutting materials to specified sizes.	2. Instructor
3. Practice cutting masonry materials with hand tools.	3. a. Tools b. Materials
4. Evaluate your work using the Self-Check. Have your instructor check your work.	4. Self-Check enclosed.
5. Go on to Enabling Objective No. 3.	

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DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.

All items should receive a "YES" response.

	YES	NO
1. Was each cut marked across the face of the material before cutting with hammer and chisel?	___	___
2. Were safety glasses worn?	___	___
3. Was the material put on the ground or a board to make each cut?	___	___
4. Was each block marked and scored on each side?	___	___
5. Was the chisel held in the given position for each cut?	___	___
6. Were the cuts straight?	___	___
7. Were the blocks cut to the given sizes?	___	___
8. Was the Elmer's Little Helper placed on a solid and level foundation?	___	___
9. Was the brick for each cut placed on the back of the cutter's table?	___	___
10. Was the top jaw adjusted before each cut was made?	___	___
11. Were the bricks cut to the given sizes?	___	___

If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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Enabling objective:

Practice cutting masonry materials with masonry saws.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of cutting masonry materials with masonry saws.	1. Instructor
2. See instructor for instructions on cutting materials to specified sizes.	2. Instructor
3. Practice cutting specified sizes from masonry materials with masonry saws.	3. a. Tools b. materials
4. Evaluate your work by completing the Self-Check. Have your instructor check your work.	4. Self-Check enclosed.
5. When you think you can perform this task, take the Performance Test.	5. Performance Test for task A-12.

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DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.

All items should receive a "YES" response.

	YES	NO
1. Was eye protection used while sawing?.....	___	___
2. Was the blade checked for tightness?.....	___	___
3. Was a wooden platform used to stand on while sawing?.....	___	___
4. Was the brick positioned against the back part of the carriage before each cut?.....	___	___
5. Was each cut lined up with the blade before cutting?.....	___	___
6. Was the carriage pushed forward until the brick contacted the blade?.....	___	___
7. Was each brick marked across the face?.....	___	___
8. Was the saw turned off before the cut brick was removed from the carriage?.....	___	___
9. When using the dry saw, was the blade checked for tightness before turning the saw on?.....	___	___
10. Was each block marked on each side?.....	___	___
11. Was the saw turned off before the block was turned over, after one side had been cut?.....	___	___
12. Was the saw turned off before removing the cut block from the carriage?.....	___	___

If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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PERFORMANCE TEST FOR [A] (duty) [1 2] (task number)

DUTY A | TASK 12 | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. IN | PROG. 9133

DIRECTIONS:

Given access to materials, hand tools and cutoff saws, you will cut specified sizes from bricks and blocks using hammer and chisel, Elmer's Little Helper, and wet and dry saws. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
Hammer and Chisel		
1. Was the masonry material marked before cutting?		
2. Was the masonry material cut straight?		
3. Was the masonry material cut the specified size?		
4. Were the tools used safely?		
5. Were tools and masonry materials that could not be used put in the proper place?		
Elmer's Little Helper		
1. Were the pieces of equipment set on a solid and level foundation?		
2. Were the materials placed on the cutter's table in position approved by instructor?		
3. Were the cuts straight?		
4. Was each brick cut the specified size?		
5. Were safety precautions followed?		
6. Was the piece of equipment cleaned and put in its proper place?		
7. Was the area cleaned after cutting was completed?		

PERFORMANCE TEST FOR [A] duty [1 2] task number

CONTINUED

PERFORMANCE STANDARDS

ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
Dry Saw		
1. Was the setup for the saw complete before sawing?		
2. Was the masonry material marked before sawing?		
3. Was the masonry material cut straight?		
4. Was the masonry material cut the specified size?		
5. Were safety precautions followed?		
6. Was the saw cleaned?		
7. Was the sawing area cleaned?		

DUTY A | TASK 12 | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT IN | PROG. 9133

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Instructional Resources

Texts

Kreh, R.T., Sr., Masonry Skills, Delmar Publishers, Albany, New York, 1976.

Equipment

1. Elmer's Little Helper (brick cutter)
2. Masonry saw
3. Hammer and chisel

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KNOWLEDGE TEST FOR [A] [1 2] PAGE 1 OF 2

duty task number

TASK: Cut Masonry Materials with Hand Tools and Cutoff Saws

DUTY A | TASK 12 | DEPT. IN | PROG.

DIRECTIONS:

The items below are Matching. On the separate Answer Sheet, put the letter of the correct answer on the blank to the left of the number of the question.

DO NOT MARK ON THIS TEST!

1. Ragged edge of metal on a chisel head.
2. A pencil mark across the face of the brick.
3. Breaking into many pieces.
4. Straight up and down.
5. Striking the chisel with the hammer lightly along the mark on both sides of the block.
6. Placed on a solid and level foundation.
7. The position in which the brick is placed on the table of Elmer's Little Helper.
8. Turning the screw handle on top of the cutter.
9. A handle with a rubber grip.
10. A flat table that rolls along the top of the saw pan.
11. What the eyes are focused on while sawing.
12. What should be done before removing the cut brick from the saw carriage.

a. vertical
b. back part of the carriage
c. wooden platform
d. narrow side or edge
e. scoring
f. saw pan
g. horizontal
h. concrete block
i. turn the saw off
j. marked brick
k. 115 volts
l. shattering
m. brick
n. power cord
o. burrs
p. Elmer's Little Helper
q. carriage
r. front part of the carriage

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13. The voltage of the dry saw.

14. The object used to stand on while sawing.

15. Connect to saw and then to power supply.

16. A pipe on the left side of the blade with a rubber grip.

17. Mark on both sides of this masonry unit before cutting.

s. adjusts top jaw

t. turn the saw on

u. part of Elmer's Little Helper

v. 220 Volts

w. the masonry unit

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KNOWLEDGE TEST ANSWER KEY

DUTY A	TASK 12	CEPT IN	PROG 9133

Multiple Choice questions

__1.	___6.	__11.	16.	___21.
___2.	___7.	_12.	17.	__22.
__3.	___8.	___13.	18.	___23.
_4.	___9.	_14.	19.	_24.
__5.	___10.	15.	20.	__25.

True-False questions

F	1.	T	F	6.	T	F	11.	T	F	16.	T	F	21.
F	2.	T	F	7.	T	F	12.	T	F	17.	T	F	22.
F	3.	T	F	8.	T	F	13.	T	F	18.	T	F	23.
F	4.	T	F	9.	T	F	14.	T	F	19.	T	F	24.
F	5.	T	F	10.	T	F	15.	T	F	20.	T	F	25.

Matching questions

o 1.	p 6.	x 11.	w 16.	___21.
j 2.	d 7.	i 12.	h 17.	___22.
l 3.	s 8.	k 13.	18.	___23.
a 4.	u 9.	c 14.	19.	___24.
e 5.	f	n 15.	20.	___25.

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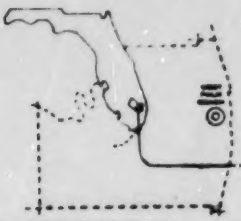
STUDENT LEARNING GUIDE



THE SCHOOL BOARD
OF PALM BEACH COUNTY, FLORIDA

DUTY | TASK | PREREQ | DEPT. | PROG.

PROGRAM: MASONRY

DUTY: 2 PERFORMING BLOCKMASON DUTIES

TASK: 0 1 Manipulate Mortar for Blocks

PURPOSE:

This task is basic to all tasks to follow in blocks. It is very important that you understand how to throw full head or cross joints on blocks so that the wall will be strong and the joints water tight. This Learning Guide will assist you in attaining the skill to manipulate mortar for blocks.

REVISED

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1

THE SCHOOL BOARD OF PALM BEACH COUNTY

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THIS STUDENT LEARNING GUIDE WAS DEVELOPED BY:

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The format used in this student learning guide is one of the products developed through a grant from the Division of Vocational Education, Florida Department of Education which designated Ridge Vocational-Technical Center as a state demonstration site for competency-based vocational education.

DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN: access to masonry tools and materials.

YOU WILL: manipulate mortar for blocks.

HOW WELL: Your performance will be assessed by your instructor using the Performance Test on pages 14-15.

ENABLING OBJECTIVES:

1. Identify steps in manipulating mortar for blocks.
2. Practice manipulating mortar for blocks.

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Enabling objective:

Identify steps in manipulating mortar for blocks.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No.1 to identify steps in manipulating mortar for blocks. 2. Evaluate your knowledge using the Self-Check. 3. Go on to Enabling Objective No.2.	1. Instruction Sheet enclosed, Manipulating Mortar for Blocks. or Text: Masonry Skills, Unit 18, Page 132. 2. Self-Check enclosed.

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Manipulating Mortar for Blocks

1. Center the thumb on the top front edge of the ferrule.

2. Clasp the fingers naturally around the handle with muscles relaxed.

3. Thrust the arm forward so that the hand is in front of the corresponding hip.

4. Holding the trowel flat, thrust the right side of the trowel into the mortar until the blade is hidden. If you are left handed, thrust the left side of the trowel into the mortar until the blade is hidden.

5. Pick up a trowel full of mortar, shake the trowel one time keeping the trowel flat. This will stick the mortar to the trowel.

6. Rotate the elbow outward and turn the trowel on end. Put the tip end of the trowel on the outside iris of the block (the outside webs of the top of the block) and spread the mortar down the outside iris of the block. Follow through with the arm. All of the mortar should leave the trowel and spread on the outside web of the blocks.

7. To spread the mortar on the inside web of the blocks, rotate the hand so that the back of the hand is toward the body.

8. The mortar should be spread solid 3/4 of an inch thick (give or take 1/8 of an inch) on the webs on both sides of the block.

   Note: When you start a block wall on a footer or slab of concrete, you must have a solid bed joint (mortar spread solid 1/2 inch, give or take 1/8 inch the width of the block) to lay the first course of block.

9. Full head or cross joints should be thrown on <u>both</u> edges of <u>one</u> end of a block!

10. Thrust the right side of the trowel into the mortar (if you are left handed, the left side of the trowel goes into the mortar). Keep the trowel flat!

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11. Keeping the trowel flat, pick up the mortar. The mortar should cover the complete blade of the trowel.

12. Set the mortar on the blade of the trowel with a quick outward motion of the wrist (this is called: a flick of the wrist).

13. Stand a block on end (in a vertical position). Throw a joint on the outside edge of the block with a downward, swiping motion of the trowel.

14. Reverse the hand and trowel.

15. Now throw a joint on the inside edge of the block with a downward, swiping motion of the trowel.

16. Using the back side of the blade of the trowel, press the mortar down on the inside of the joints which you threw. This will keep the joints from falling off the block when you pick it up.

17. If the joint does not stick to the block, go back to the mortar board and get some fresh mortar. Throw the joints on again. Always use fresh mortar for a head joint.

18. Lay a block flat down (horizontally) with the large webs up.

19. Put the tip of your trowel blade into the mortar on the mortar board. Mortar should be about half-way up on the blade of the trowel.

20. Flick the wrist to set the mortar on the trowel (mortar should be flat on the trowel).

21. Bring the trowel to the right outside edge of the block (you should be standing on the inside facing the block).

22. Turn the inside of the trowel blade flat against the edge of the block.

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23. Now, on the inside of the block (on the same end), smear a thin layer of mortar on the inside edge (from bottom to top).

24. Go back to the mortar board, thrust the trowel into the mortar (right side first). Flick the wrist to set the mortar on the trowel.

25. Turn back to the block (you should be standing in front of the blocks). Stand the trowel on end in front of the outside edge of the block (edge which mortar is smeared on).

26. Starting at the bottom of the block, come upward with a swiping motion. The mortar should stick on the inside edge of the block.

27. Turn your body so that you are standing beside the block. You should be facing the end of the block you are working on.

28. If you need extra mortar, get it from the mortar board.

29. Turn your trowel on end with the inside facing the inside edge of the block (the edge you smeared mortar on).

30. Holding the trowel on end, come backward contacting the edge of the block with a swiping motion.

31. The mortar should stick on the inside edge of the block to form a joint.

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DIRECTIONS: Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. The thumb should be centered on the top back edge of the ferrule.

2. The trowel should be held flat and the side of the trowel thrust into the mortar until the blade is hidden.

3. A trowel full of mortar should be shaken two or three times and kept flat. This will stick the mortar to the trowel.

4. You should spread all the mortar that is on the trowel down the outside web of the block with one swipe.

5. You should spread the mortar on the inside web of the block by rotating the hand.

6. The bed joint on the footer or slab should be a solid bed joint.

7. Full head joints should be thrown on both edges of one end of a block.

8. When mortar is picked up with the trowel for head joints, the mortar should not be set on the trowel.

9. The blocks should be stood on end before throwing the head joints on them.

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10. If the head joint falls off the block, you should go ahead and lay the block and point the joint up later.

11. When throwing head joints or a block in the wall, the block should be standing on end.

12. When throwing the head joint on the block in the wall, you flick the wrist to set the mortar on the trowel.

13. You should smear a thin layer of mortar on the edge of the block before you throw the head joint on the block in the wall.

14. When throwing the head joints on the blocks in the wall, you should start at the bottom of the block and come upward with a swiping motion.

15. Your trowel should be turned on end to throw joints on the blocks in the wall.

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1. F
2. T
3. F
4. T
5. T
6. T
7. T
8. F
9. T
10. F
11. F
12. T
13. T
14. T
15. T

All of your answers should agree with the answers on the Answer Key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE | 2 | number | PAGE 11 OF 16

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective:

Practice manipulating mortar for blocks.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of manipulating mortar for blocks.	1. Instructor.
2. Practice manipulating mortar for blocks.	2. Self-Check enclosed.
3. Complete Self-Check.	3. Instructor.
4. Have instructor check your work.	4. Performance Test.
5. When you think you can perform this task, take the Performance Test.	

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SELF-CHECK FOR ENABLING OBJECTIVE | 2 (number) | PAGE 12 OF 16

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.
All items should receive a "YES" response.

		YES	NO
1.	Was the thumb centered on the top, front edge of the ferrule when you spread the mortar?.....	_____	_____
2.	Were the fingers clasped around the handle with muscles relaxed?.....	_____	_____
3.	Was the trowel held flat and the right side thrust into the mortar (the left side if left handed)?..	_____	____
4.	Was the trowel shaken after the mortar was picked up?.....	____	____
5.	Was the trowel turned on end and the point of the trowel put on the iris of the block before the mortar was spread?.....	____	____
6.	Was the hand rotated to spread the mortar on the inside iris of the block?.....	____	____
7.	Was the mortar spread 3/4 of an inch thick (give or take 1/8 of an inch) on the iris of both sides of the blocks?.....	____	____
8.	Was the blade of the trowel completely covered with mortar before throwing head joints on blocks?	____	____
9.	Was the wrist flicked to set the mortar on the trowel?.....	____	____
10.	Was your hand and trowel reversed when you threw the joint on the inside edge of the block?.....	____	____
11.	Were the head joints full after you threw them?...	_____	____
12.	Were the joints struck to the edge of the blocks?	_____	____

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		YES	NO
13.	Was the block laying down with the large webs up when the head joints were thrown on the block in the wall?.....	_____	_____
14.	Was a little mortar smeared on the edge of the end of the block first before throwing the head joint?.....	_____	_____
15.	Was the mortar set on the trowel before throwing the head joint?.....	_____	_____
16.	Was the head joint thrown starting from the bottom and working up?.....	_____	_____
17.	Were the head joints full on both sides of the block?.....	_____	_____

If you received a "No" response for <u>any</u> item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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PERFORMANCE TEST FOR [2] [0] [1]
duty task number

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. | PROG.

DIRECTIONS:

Given access to mansory tools and materials, you will manipulate mortar for blocks. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
Spreading Mortar for Blocks		
1. Was the thumb centered on the top, front edge of the ferrule when spreading the mortar?.....		
2. Were the fingers clasped around the handle with muscles relaxed?.....		
3. Was the trowel held flat and thrust into the right side in the mortar (the left side if left handed) ?.....		
4. Was the trowel shaken one time after the mortar was picked up?.....		
5. Was the trowel turned on end and the point put on the iris of the block before stringing the mortar on the block?.....		
6. Was the hand rotated (putting the back of the hand toward the body) before the mortar was spread on the inside iris of the block?.....		
7. Was the height of the mortar 3/4 of an inch (give or take 1/8 of an inch) on the top of both sides of the blocks?.....		
Throwing Head Joints on End of BLocks		
1. Was the blade of the trowel completely covered with mortar before throwing joints on blocks?.....		
2. Was the mortar set on the trowel by flicking the wrist?.....		

PERFORMANCE TEST FOR duty [2] task number [0 1]

CONTINUED

PERFORMANCE STANDARDS

ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
3. Was joint on the outside end of the block thrown on?..		
4. Was the hand and trowel reversed when the joint on the inside end of the block was thrown?.....		
5. Were the head joints full?.....		
6. Were the head joints on the end of the block as it was picked up?.....		
Throwing Head Joints on End of Block in the Wall		
1. Was the block laying down with the large webs up when the joints were thrown?.....		
2. Was the mortar set on the trowel before throwing the head joints?.....		
3. Were the head joints thrown starting from the bottom and working up to the top?.....		
4. Were the head joints thrown on both sides of the ends of the block?.....		
5. Were the head joints full?.....		

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. | PROG.

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DUTY | TASK | DEPT. | PROG.

Instructional Resources

Text

Kreh, R.T., Sr., Masonry Skills, Delmar Publishers, Albany, New York, 1976.

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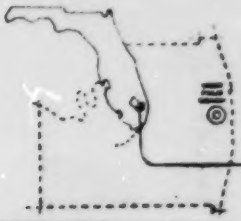
STUDENT LEARNING GUIDE



THE SCHOOL BOARD
OF PALM BEACH COUNTY, FLORIDA

DUTY | TASK | PREREQ. | DEPT. | PROG.

REVISED

PROGRAM: MASONRY

DUTY: 2 PERFORMING BLOCKMASON DUTIES

TASK: 0 2 Lay Blocks to a Line

PURPOSE:

Laying blocks to a line is a task you should become familiar with. If the wall you will eventually construct is longer than 4 feet, you need the line as a guide for you to keep your blocks plumb and level. This Learning Guide will assist you in attaining the skill to lay blocks to a line.

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E. Miles Bacon, Director of Vocational-Technical Education

Wilma McCarty, Curriculum and Staff Development Specialist

THIS STUDENT LEARNING GUIDE WAS DEVELOPED BY:

Matt Korenski, Masonry Instructor
South Technical Education Center

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DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN: access to masonry tools and materials,

YOU WILL: lay blocks to a line.

HOW WELL: Your performance will be assessed by your instructor using the Performance Test.

ENABLING OBJECTIVES:

1. Identify steps in laying blocks to a line.
2. Practice laying blocks to a line.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [1] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective:

Identify steps in laying blocks to a line.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No.1 to identify steps in laying blocks to a line. 2. Complete Self-Check. 3. Go on to Enabling Objective No.2.	1. Instruction Sheets enclosed, Stocking as Block Wall Hanging a Line on Existing Leads. 2. Self-Check enclosed.

3

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Stocking a Block Wall

1. You must be standing on the material side of the wall.

2. With your 6 foot modular rule, measure from the inside of the edge of the right hand lead straight back 2 feet, and make a pencil mark on the concrete.

3. Repeat step No.2 except -- measure from the left hand lead.

4. Using a chalk box, strike a line from the pencil mark on the right to the pencil mark on the left.

5. Between the inside of the wall and the line you marked is the space where you will be standing while you are stocking a block wall.
This is called the work area.

6. From the last line you marked, measure 2 feet more on each end and strike another line with your chalk box.

7. This area will be where your blocks and mortar boards are stoked.

8. Standing in your work area facing the first chalk line marked, move down to your left (even with the right hand lead). Measure 2 feet from left to right and make a pencil mark.

9. From that point, measure 6 inches and make another pencil mark. Continue this measuring of 24 inches and 6 inches making pencil marks until you are even with the lead behind you or the left hand lead.

10. Now, do the same measuring on the other chalk line.

11. Connect these pencil marks on both lines with your chalk box. You now have each separate area marked off for the blocks, space between the blocks, mortar board and the exact spot for the mortar boards.

12. At either side, begin stocking the 2'x2' space. Stock three 8" blocks and one 8" half block. Skip 6" and stock one mortar board. Skip 6" and stock three 8" blocks. Skip 6" and stock one mortar board. Skip 6" and stock three 8" block and one 8" half block. There should be three stock areas of block and two mortar boards.

13. Your last stack of block should be in line with the lead behind you.

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Hanging a Line on Existing Leads

1. You must be standing on the material side of the wall.

2. The line must be hung on the left lead first.

3. Take hold of a line block with your right hand and lay the line in the slot of the line block with your left hand. About 18" of the line must be hanging over the left end (large end) of the line block.

4. With the line block still in the right hand, use your left hand to wrap a portion of the 18" of line around the center of the line block.

5. Now wrap the line one time counterclockwise around the line block and go into the slot (you should have about 6" to 8" of line left).

6. Hang the line block on the left lead and hold the line with tension as you go to the right lead.

7. When you get to the right lead, take the other line block in your left hand and lay the line in the slot with your right hand.
   Line must be hanging over the right end (large end) of the line block.

8. With the line block still in the left hand, use your right hand to wrap the line around the center of the line block two times clockwise and then place it into the slot of the block.

9. Now wrap the line one time counterclockwise around the line block and go into the slot.

10. Hang the line block on the right lead.

11. Be sure that the line is tight!

12. The line blocks must be secure on the leads.

13. The line must be level with the iris of the blocks on both leads!

14. You should be able to hang the line in 45 seconds!

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Laying Blocks to a Line

1. Check to see that the line is tight and secure.
2. Be sure the line is level with the iris of the blocks on the left and right lead.
3. The bed joint of the first course of block should be solid.
4. Dry bond for the first course of blocks.
5. The head joints must be uniform in size (ranging 1/4" to 1/2" in size).
6. Mark the space for the head joints on the concrete slab or footer with a pencil.
7. Lay the first course of blocks level through the wall. Use your 2 foot level to do this.
8. Lay the blocks level with the top of the line.
9. Lay the blocks at least 1/16" (one thickness of the line) away from the line.
10. The head joints must be full of mortar on both sides of the blocks.

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DIRECTIONS:

Evaluate your knowledge by Matching the items in the right column that best identify the items in the left column on a separate sheet of paper.

1.	Use to lay blocks between existing leads.	a.	line blocks
		b.	2 ft. level
2.	Holds the mason's line on existing leads.	c.	mortar
3.	Used to plumb and level blocks.	d.	first course of blocks
4.	Used for measuring.	e.	mason's line
5.	Bonds the blocks together.	f.	head joints
6.	The place you stand while you work.	g.	work area
7.	Blocks and mortar boards are stocked here.	h.	6 ft. rule
8.	Block layed out in a straight line without mortar.	i.	dry bonded
		j.	material area
9.	Ranging 1/4" to 1/2" in size.	k.	18" of line
10.	Level through the wall.	l.	left hand lead

Now check your answers with an Answering Key.

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1. e
2. a
3. b
4. h
5. c
6. g
7. j
8. i
9. f
10. d

All of your answers should agree with the answers in the Answer Key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objective.

8

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE 2 (number) PAGE 10 OF 14

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective:

Practice laying blocks to a line.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of laying blocks to a line.	1. Instructor
2. Practice laying blocks to a line.	2. Self-Check enclosed.
3. Complete Self-Check.	3. Instructor
4. Have instructor check your work.	4. Performance Test.
5. When you think you can attain this task, take the Performance Test.	

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SELF-CHECK FOR ENABLING OBJECTIVE [2] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.
All items should receive a "YES" response.

		YES	NO
1.	Was the stocked area layed out with a pencil and chalk line?.....	___	___
2.	Was each end of the stock area begun with a stack of blocks.....	___	___
3.	Were there three stacks of blocks and two mortar boards in a straight line?.....	___	___
4.	Was there 6 inches between each mortar board and each block pile?.....	___	___
5.	Were you standing on the material side of the wall when hanging the line?.....	___	___
6.	Was the line hung on the left lead first?.....	___	___
7.	Was the line wrapped two times around the line block and slotted two times?.....	___	___
8.	Was the line tight?.....	___	___
9.	Was the line level with the iris of the blocks on both leads?.....	___	___
10.	Was the line hung in 45 seconds?.....	___	___
11.	Was the first course of block dry bonded?.....	___	___
12.	Were the head joints uniform?.....	___	___
13.	Were the blocks level with the top of the line?	___	___
14.	Were the blocks at least 1/8" from the line?	___	___

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15. Were the blocks level through the wall?.....

16. Were the head joints full on both sides of the block?.....

If you received a "NO" response for any items, go back and repeat one or more of the Learning Activities for this Enabling Objective.

PERFORMANCE TEST FOR [2] [0 2]
duty task number

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. | PROG.

DIRECTIONS:

Given access to masonry tools and materials, you will lay blocks to a line. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
1. Was the block wall stocked?		
2. Was the line hung in 45 seconds?		
3 Were the blocks dry bonded?		
4. Were the head joints uniform?		
5. Were the blocks layed level with the top of the line?		
6. Were the blocks layed 1/16" away from the line?		
7. Were the blocks level through the wall?		
8. Were the head joints full on both sides of the wall?		

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DUTY | TASK | DEPT. | PROG.

Instructional Resources

Audiovisuals

Richards, John J., Laying Block to the Line filmstrip, DCA Educational Products, Washington, Pennsylvania, 1977.

Roth, William, Laying Blocks to Line caramate slide/tape series, Visual Products Division, St. Paul, Minnesota, 1976.

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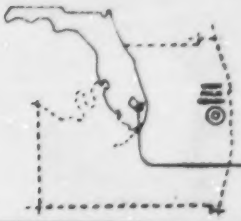

THE SCHOOL BOARD
OF PALM BEACH COUNTY, FLORIDA

DUTY | TASK | PREREQ. | DEPT. | PROG.

REVISED

PROGRAM: MASONRY

DUTY: 2 PERFORMING BLOCKMASON DUTIES

TASK: 0 3 Construct a Block Wall Between Existing Leads

PURPOSE:

The purpose of existing leads is to help lay the blocks for each course the needed height. To be a good blockmason you should be able to lay the blocks even with the blocks in the course below and level with the line in each course. This Learning Guide will assist you in attaining the skill to construct a block wall between existing leads.

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DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN:

access to masonry tools and materials,

YOU WILL:

construct a block wall between existing leads.

HOW WELL:

Your performance will be assessed by your instructor using the Performance Test on page 10.

ENABLING OBJECTIVES:

1. Identify steps in constructing a block wall between existing leads.

2. Practice constructing a block wall between existing leads.

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DUTY | TASK | EN. OBJ. | DEPT | PROG.

Enabling objective:

Identify steps in constructing a block wall between existing leads.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No. 1 to identify steps for constructing a block wall between existing leads. 2. Complete Self-Check. 3. Go on to Enabling Objective No.2.	1. Instruction Sheet enclosed, Constructing a Block Wall Between Existing Leads. 2. Self-Check enclosed.

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Constructing a Block Wall Between Existing Leads

1. Hang the line pins on the first course on each lead.
2. Be sure the line is tight and secure.
3. Be sure the line is level with the iris of the lead blocks.
4. Lay the bond out with uniform joints for the first course.
5. The bed joint should be solid on the first course of blocks.
6. The second course should half bond (half lap or be halfway over) the first course.
7. Lay the second course. Now you have the bond for a half bonded block wall.
8. Be sure the joints are full on both sides of the wall.
9. Float all joints with your rubber float. Have instructor show you how to use the float.
10. Joint the bed joint on both sides with a long vee jointer.

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DIRECTIONS:

Evaluate your knowledge by matching the items below using a separate sheet of paper.

1. Used for striking block joints.
2. Level through the wall.
3. The top edge of the blocks.
4. Used to finish block joints.
5. Half-layed or halfway over.
6. All the same size.
7. The area the block wall is to be layed.
8. The thickness of the line away from the line.

a. between existing leads
b. iris of the block
c. uniform joints
d. half bond
e rubber float
f. long V jointer
g. first course of blocks
h. line blocks
i. mason's lead
j. dry bonded
k. lay each block

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Now check your answers with the Answer Key.

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1. f
2. g
3. b
4. e
5. d
6. c
7. a
8. k

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All of your answers should agree with the Answer Key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objective.

Enabling objective

Practice constructing a block wall between existing leads.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of constructing a block wall between existing leads.	1. Instructor
2. Practice constructing a block wall between existing leads.	2. Self-Check enclosed.
3. Complete Self-Check.	3. Instructor
4. Have instructor check your work.	4. Performance Test D-3.
5. When you think you can perform this task, take the Performance Test.	

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SELF-CHECK FOR ENABLING OBJECTIVE [2] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.
All items should receive a "YES" response.

		YES	NO
1.	Was the line pulled tight for the first course?.....	___	___
2.	Was the line level with the top of the lead blocks.....	___	___
3.	Was the first course bonded out?.....	___	___
4.	Was the bed joint solid for the first course of block?.....	___	___
5.	Were the head joints uniform?.....	___	___
6.	Was the second course half bonded over the first course?.....	___	___
7.	Were the joints floated on both sides of the wall?.....	___	___
8.	Were the bed joints struck with a long vee jointer?.....	___	___

If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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PERFORMANCE TEST FOR [2] [03] [2]

duty task number

PAGE 10 OF 11

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. | PROG.

DIRECTIONS:

Given access to masonry tools and equipment, you will construct a block wall between existing leads. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
1. Were the joints uniform in the wall?.....		
2. Was a solid bed of mortar spread for the bed joint of the first course?.....		
3. Were the blocks layed to the line?.....		
4. Was the second course of block half bonded over the first course?.....		
5. Was the bottom of the second course of block even with the top of the first course?		
6. Were the head joints floated on both sides of the wall?.....		
7. Were the bed joints struck on both sides of the wall with a long vee jointer?.....		
8. Were the bed joints refloated and restruck?		

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LIST OF **RESOURCES, MATERIALS, AND EQUIPMENT** PAGE 11 OF 11

DUTY | TASK | DEPT. | PROG.

No additional resources required.

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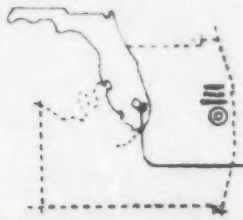

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THE SCHOOL BOARD
OF PALM BEACH COUNTY, FLORIDA

DUTY | TASK | PREREQ | DEPT. | PROG.

PROGRAM: MASONRY

DUTY: 2 PERFORMING BLOCKMASON DUTIES

TASK: 0 4 Lay an 8" Block Lead

PURPOSE:

In this task, you will acquire the skill to lay blocks within a lead without using a line. Accuracy is most important when laying these blocks because of a straight block wall being the ultimate goal. This Learning Guide will assist you in attaining the skill to lay an 8" block lead.

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DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:

(Include condition, performance, and standard)

GIVEN: access to masonry tools and materials.

YOU WILL: lay an 8' block lead.

HOW WELL: Your performance will be assessed by your instructor using the Performances Test on page 11.

ENABLING OBJECTIVES:

1. Identify steps in laying an 8" block lead.
2. Practice laying an 8" block lead.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE | 1 | number | PAGE 4 OF 12

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective

Identify steps in laying an 8" block lead.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No.1 to identify steps in laying an 8" block lead. 2. Complete the Self-Check. 3. Go on to Enabling Objective No.2.	1. Instruction Sheet enclosed, Laying an 8" Block Lead 2. Self-Check enclosed.

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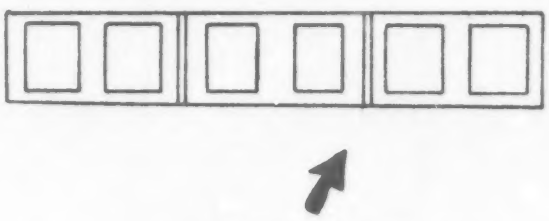
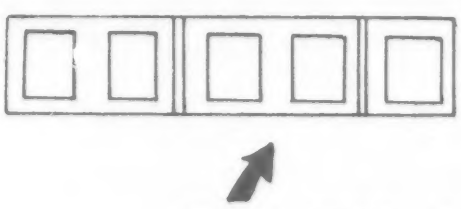
Laying an 8" Block Lead

1. Make a 4' mark on the slab or foundation with a 4' level.
2. Dry bond three 8" blocks along the 4' mark using 3/8 inch head joints.
3. Lay the first course with a solid bed joint.
4. The first course should look like the plan below.



First course layout

5. Level, plumb and straightedge the first course.
6. Jamb up one end and rack back 8" in the second course.
7. Start with a half 8" block in the second course.
8. The second course should look like the plan below.



Second course layout

9. Range the lead with a 4' level when completed.

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DIRECTIONS:

Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. A 4' line should be made so the first course of block can be layed to the line.
2. There are four blocks in the first course.
3. Head joints should be uniform.
4. There should be a half block on the second, fourth and sixth course.
5. Each course must be level, plumb and straightedged.
6. The finished lead should be 48" high.
7. The outside should be floated and the inside pointed.
8. If the lead measures 48" high, it should be six courses of block high.

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Now check your answers with the Answer Key.

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

1. T
2. F
3. T
4. T
5. T
6. T
7. F
8. T

All of your answers should agree with the answers on the Answer Key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objective.

LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [2] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective

Practice laying an 8" block lead.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of laying an 8" block lead.	1. Instructor
2. Prepare a job plan sheet which lists tools, materials and steps for laying an 8" block leads.	2. Instructor
3. Have instructor check you job plan sheet.	3. a. Tools b. Materials
4. Practice laying an 8" block lead.	4. Self-Check enclosed.
5. Complete Self-Check.	5. Instructor
6. Have instructor check your work.	6. Performance Test.
7. When you think you can perform this task, take the Performance Test.	

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SELF-CHECK FOR ENABLING OBJECTIVE [2] number PAGE 10 OF 12

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.
All items should receive a "YES" response.

		YES	NO
1.	Was the line for the lead marked on the slab or foundation?.....	____	____
2.	Was the first course dry bonded?.....	____	____
3.	Were the head joints uniform?.....	____	____
4.	Was the bed joint for the first course solid?	____	____
5.	Was the first course level?.....	____	____
6.	Was the first course plumbed and straightedged?.	____	____
7.	Was the second course started with a half block?	____	____
8.	Was the jamb of the lead plumb?.....	____	____
9.	Was the lead plumb?.....	____	____
10.	Was the lead ranged?.....	____	____
11.	Was the lead floated?.....	____	____
12.	Were the lead floated?.....	____	____
13.	Were the joints rest ack?.....	____	____

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If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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PERFORMANCE TEST FOR [2] [0 4]
duty task number

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT | PROG.

DIRECTIONS:

Give access to masonry tools and materials, you will lay an 8" block lead. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
1. Was the lead layed out and dry bonded?		
2. Were the head joints uniform?		
3. Was the bed joint of the first course solid?		
4. Was each course level?		
5. Was the jamb plumb?		
6. Was tail of the lead ranged?		
7. Was the lead plumb		
8. Was the lead floated on both sides		
9. Were the bed joints struck with a long vee jointer?		
10. Were the joints refloated and restruck on the outside of the lead		

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DUTY	TASK	DEPT.	PROG.

No additional resources required.

STUDENT LEARNING GUIDE

THE SCHOOL BOARD
OF PALM BEACH COUNTY, FLORIDA

DUTY | TASK | PREREQ. | DEPT. | PROG.

REVISED

PROGRAM: MASONRY

DUTY: 2 PERFORMING BLOCKMASON DUTIES

TASK: 0 5 Lay an 8" Block Corner

PURPOSE:

The difference between the construction of an 8" brick corner and an 8" block corner is the size of the units. Blocks are larger and heavier than bricks. Because blocks are greater in length and height, they are more difficult to level and plumb. This Learning Guide will assist you in attaining the skill to lay an 8" block corner.

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Riviera Beach, Florida 33404

South Technical Education Center
1300 S. W. 30th Avenue
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Wilma McCarty, Curriculum and Staff Development Specialist

THIS STUDENT LEARNING GUIDE WAS DEVELOPED BY:

The format used in this student learning guide is one of the products developed through a grant from the Division of Vocational Education, Florida Department of Education which designated Ridge Vocational-Technical Center as a state demonstration site for competency-based vocational education.

DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

GIVEN: access to masonry tools and materials,

YOU WILL: lay an 8" block corner.

HOW WELL: Your performance will be assessed by your instructor using the Performance Test.

ENABLING OBJECTIVES:

1. Identify steps in laying an 8" block corner.
2. Practice laying an 8" block corner.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE | 1 (number) | PAGE 4 OF 10

DUTY | TASK | EN OBJ | DEPT | PROG

Enabling objective

Identify steps in laying an 8" block corner.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No. 1 to identify steps in laying an 8" block corner. 2. Complete Self-Check. 3. Go on to Enabling Objective No.2.	1. a. Text: Masonry Skills, Unit 19, pages 140-146. b. Filmstrip: "The Block Corner". 2. Self-Check enclosed.

DIRECTIONS:

Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. A square and a 4' level are used to lay out a block corner.
2. The bed joint of the first course should be solid.
3. Leveling and plumbing the blocks should begin on the second course of an 8" block corner.
4. The head joints should be 1/2" wide in all block corners.
5. To plumb the block corner, the level must be kept tight against the bottom of the first course of block.
6. Each course of block does not need to be straightedged.
7. Each course of block should be layed 8" in height.
8. If there were five blocks on the first course, when the corner is completed it would have six courses.

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Now check your answers with the Answer Key.

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DUTY | TASK | EN. OBJ. | DEPT. | PROG.

1. T
2. T
3. F
4. F
5. T
6. F
7. T
8. F

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All of your answers should agree with the answers on the Answer key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objecative.

LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [1] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective

Practice laying an 8" block corner.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of laying an 8" block corner.	1. Instructor
2. Prepare a job plan sheet which lists tools, materials and steps for laying an 8" block corner.	2. Job plan sheet.
3. Have instructor check your job plan sheet.	3. Instructor
4. Practice laying an 8" block corner.	4. a. Prepared job plan b. Tools c. Materials
5. Complete Self-Check.	5. Self-Check enclosed.
6. Have instructor check your work.	6. Instructor.
7. When you think you can perform this task, take the Performance Test.	7. Performance Test.

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DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.
All items should receive a "YES" response.

		YES	NO
1.	Was the corner layed out with a square and a level?.....	____	____
2.	Was the first course dry bonded?.....	____	____
3.	Were the head joints uniform in the first course?	____	____
4.	Was the bed joint of the first course solid?.....	____	____
5.	Was the first course of block level and plumb?	____	____
6.	Was the second course of block half bonded over the first course?.....	____	____
7.	Was each course of block straightedged?.....	____	____
8.	Was the corner plumb on each side?.....	____	____
9.	Was each course of block layed 8" in height?	____	____
10.	Was the corner floated on both sides and the bed joints struck with a long vee jointer?.....	____	____

If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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PERFORMANCE TEST FOR [2] [0 5]
duty task number

DIRECTIONS:

Given access to masonry tools and materials, you will lay an 8" block corner. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
1. Was the corner layed out?		
2. Were the head joints uniform?		
3. Was the first bed joint solid?		
4. Was each course level?		
5. Was the corner plumb?		
6. Were the tails of the corner ranged?		
7. Was each course straightedged?		
8. Was the height of the corner 8" each course?		
9. Were both sides of the corner floated?		
10. Were the bed joints on the outside struck with a long vee jointer?		
11. Was the outside of the corner refloated		
12. Were the bed joints of the outside restruck?		

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. | PROG.

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DUTY | TASK | DEPT. | PROG.

Instructional Resources

Text

Kreh, R.,T., Sr.,Masonery Skills, Delmar Publishers, Albany, New York, 1976.

Audiovisuals

Richards, John J., "The Block Corner", filmstrip, DCA Educational Products, Warrington, PA, 1977.

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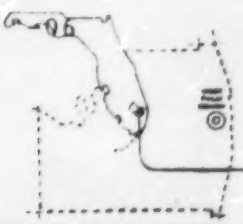

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OF PALM BEACH COUNTY, FLORIDA

DUTY | TASK | PREREQ | DEPT. | PROG.

PROGRAM: MASONRY

DUTY: 2 PERFORMING BLOCKMASON DUTIES

TASK: 0 6 Construct an 8" Block Wall

PURPOSE:

In block masonry construction, 8" block walls are used more than any other size block walls. As a mason, you will need to know how to layout, construct and finish an 8" block wall. This Learning Guide will assist you in attaining the skill of constructing an 8" block wall.

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THIS STUDENT LEARNING GUIDE WAS DEVELOPED BY:

Matt Korenski, Masonry Instructor
South Technical Education Center

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DUTY | TASK | DEPT. | PROG.

PERFORMANCE OBJECTIVE:
(Include condition, performance, and standard)

access to masonry tools and materials.

GIVEN:

YOU WILL: construct an 8" block wall.

HOW WELL: Your performance will be assessed by your instructor using the Performance Test.

ENABLING OBJECTIVES:

1. Identify steps for laying out a block story pole.
2. Identify steps for constructing an 8" block wall.
3. Practice constructing an 8" block wall.

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LEARNING ACTIVITIES FOR ENABLING OBJECTIVE [1] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

Enabling objective

Identify steps for laying out a block story pole.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resource No. 1 to identify steps for laying out a block story pole.	1. Text: Advanced Masonry Skills, Unit 3, page 28 - Figure 3.7, pages 30-32 - "Laying Out a Story Pole for Concrete Blocks" - Figure 3.8.
2. Complete Self-Check.	2. Self-Check enclosed.
3. Go on to Enabling Objective No.2.	

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DIRECTIONS:
Evaluate your knowledge by putting the letter of the correct answer on a separate sheet of paper.

1. A story pole is usually how many feet high?

   a. 10
   b. 8
   c. 6
   d. 4

2. The best method of marking each course on a story pole is with:

   a. a pencil.
   b. red ink.
   c. red paint.
   d. a saw cut.

3. To lay out regular blocks on a story pole with a 6 ft. rule, make every mark:

   a. 4" high.
   b. 6" high.
   c. 8" high.
   d. 10" high.

4. A masonry block corner should be checked with the story pole every:

   a. course.
   b. other course.
   c. third course.
   d. none of the above.

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5. The story pole should be made of:

   a. steel.
   b. wood.
   c. metal.
   d. none of the above.

6. How many courses of regular block are there in 88 inches?

   a. 11
   b. 10
   c. 9
   d. 8

Now check your answers with the Answewr Key.

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1. a
2. d
3. c
4. b
5. b
6. a

All of your answers should agree with the answers in the Answer Key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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Constructing an 8" Block Wall

1. Use a chalk line to mark an outside wall line on the footer or slab.
2. Bond the first course of block by dry bonding or measuring with a rule.
3. Each head joint should be 3/8 of an inch.
4. Set the last block at each end of the wall in mortar level with each other.
5. Level and plumb each end block.
6. Hang a line from the left end block to the right end block.
7. The opposite end of each block must clear the line.
8. Lay the remaining blocks in mortar in the first course.
9. Build a lead on each end of the wall five courses high.
10. Lay each course on 8".
11. Level and plumb each course.
12. The second course should start with a half block on each end of the wall.
13. Fill in between the leads.
14. Use the line on each course.
15. Float the head and bed joints with a rubber float on both sides of the wall.
16. Strike the bed joints with a long vee jointer on the outside of the wall.

Enabling objective

Identify steps for constructing an 8" block wall.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Use Resources No.1 to identify steps for constructing an 8" block wall. 2. Use Resource No.2 to identify steps in floating and striking the joints for an 8" block wall. 3. Complete the Self-Check. 4. Go on to Enabling Objective No.3.	1. Instruction Sheet enclosed, Constructing an 8" Block Wall or Pivot slide/tape series: "Constructing a Block Wall" 2. Instruction Sheet enclosed, Floating and Striking Joints 3. Self-Check enclosed. 53

Floating and Striking Joints

1. Fill all head and bed joints with mortar if needed.
2. Float all joints with rubber float, keeping the float wet.
3. Float the wall with a circular motion.

   Strike the bed joints only with a long vee jointer.
5. Float back over the bed joints and then strike back through the joints with the jointer.
6. Cut the excess mortar off the bed joints with a trowel.

DIRECTIONS:

Evaluate your knowledge by answering True or False to the items listed below on a separate sheet of paper.

1. A wall line is marked on the footer or slab.
2. Each head joint should be 3/8 of an inch (uniform).
3. The first course of blocks should be bonded.
4. The last block on each end of the wall should be set in mortar 8" high before laying the first course of blocks.
5. A line should be used to range the two end blocks on the first course.
6. A line should be used to lay the first course of block.
7. A lead should be built on each end of the wall after the first course of block is layed.
8. Only the outside of the block wall should be floated.
9. The outside bed joints of the wall should be jointed with a convex jointer.
10. When floating a block wall, use a circular motion.

Now check your answers with the Answer Key.

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

1. T
2. T
3. T
4. F
5. T
6. F
7. T
8. F
9. F
10. T

All of your answers should agree with the answers on the Answer Key. If you missed any, go back and repeat one or more of the Learning Activities for this Enabling Objective.

Enabling objective:

Practice constructing an 8" block wall.

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. See instructor for your job of constructing an 8" block wall.	1. Instructor
2. Prepare a job plan sheet which lists tools, materials and steps for making a story pole for blocks and steps for constructing an 8" block wall. Have your instructor check your work.	2. Instructor
3. Practice making a story pole for blocks.	3. a. Tools b. Materials
4. Complete the Self-Check. Have your instructor check your work.	4. a. Self-Check enclosed. b. Instructor
5. Practice constructing an 8" block wall.	5. a. Tools b. Materials
6. Complete the Self-Check. Have instructor check your work.	6. a. Self-Check enclosed. b. Instructor
7. When you think you can perform this task, take the Performance Test.	7. Perform Test.

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SELF-CHECK FOR ENABLING OBJECTIVE [3] number

DUTY | TASK | EN. OBJ. | DEPT. | PROG.

DIRECTIONS:

Evaluate your work by answering the items below on a separate sheet of paper.
All items should receive a "YES" response.

		YES	NO
1.	Was a wooden story pole used?.....	____	____
2.	Was it marked off on 8" for each course?.....	____	____
3.	Was each mark sawed with a saw?.....	____	____
4.	Were the courses numbered?.....	____	____
5.	Was the top and bottom marked on the story pole?	____	____

If you received a "NO" response for any item, go back and repeat one or more of the Learning Activities for this Enabling Objective.

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PERFORMANCE TEST FOR [2] [0] [6]
duty task number

DUTY | TASK | ATTEMPT | STUDENT | DATE | ☐ Attained ☐ Not attained | EVALUATOR | DEPT. | PROG.

DIRECTIONS:

Given access to masonry tools and materials, you will construct an 8" block wall. You will be evaluated for attainment of this task, based upon the items listed below.

PERFORMANCE STANDARDS ALL ITEMS MUST BE MARKED YES FOR ATTAINMENT	YES	NO
1. Was the first course of block bonded?		
2. Were the head joints uniform?		
3. Were the jambs on each lead plumb?		
4. Was the wall plumb?		
5. Was the wall level?		
6. Was each course of blocks on each lead layed with the marks on the story pole?		
7. Was the wall six courses high?		
8. Were both sides of the wall floated?		
9. Were the bed joints on the outside of the wall struck with a long vee jointer?		
10. Were the joints refloated and restruck?		

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DUTY | TASK | DEPT. | PROG.

Instructional Resources

Text

Kreh, R.T., Sr., Advanced Masonry Skills, Delmar Publishers, Albany, New Yorak, 1978.

Audiovisuals

Roth, William, "Constructing a Block Wall" slide/tape series, Visual Products Division, St. Paul, Minnesota, 1976.

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